

APPENDIX 13A. MANUFACTURER IMPACT ANALYSIS INTERVIEW GUIDES

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APPENDIX 13A. MANUFACTURER IMPACT ANALYSIS INTERVIEW GUIDES

13A.1 CONVENTIONAL COOKING PRODUCTS

Cooking Products Rulemaking Manufacturer Impact Analysis Interview Guide: Electric and Gas Cooktops, Ovens, and Ranges

March 4, 2008

Section 6313(a)(6)(A) of 42 U.S.C. requires the U.S. Department of Energy (DOE) to set forth energy conservation standards that are technologically feasible, economically justified, and that would result in significant additional energy conservation. This interview guide allows the opportunity for manufacturers to provide valuable information that will assist DOE in its decisions for the cooking products rulemaking.

For the advance notice of proposed rulemaking (ANOPR) for cooking products, DOE based its analyses on the 1996 *Technical Support Document for Residential Cooking Products* (1996 TSD). The costs found in the 1996 TSD were converted to 2007 dollars using the producer price index (PPI). The information found in the 1996 TSD was also supplemented with currently researched data and information provided by the Association of Home Appliance Manufacturers (AHAM).

For the notice of proposed rulemaking (NOPR) analyses, Navigant Consulting Inc. (NCI) developed a “strawman” model of the cooking products industry financial performance called the Government Regulatory Impact Model (GRIM). The GRIM uses publicly available data (*e.g.*, U.S. Securities and Exchange Commission (SEC) 10-K Forms) and 1996 TSD figures that were adjusted by shipment volumes and the PPI. These interviews will serve to review and supplement the strawman GRIM inputs and provide an opportunity to discuss the possible impacts of different efficiency levels on such issues as manufacturing costs, equipment prices, product sales, direct employment, capital assets, and industry competitiveness.

1 KEY ISSUES

DOE is currently reviewing a set of efficiency levels for Electric Coil Cooktops, Electric Smooth Cooktops, Gas Cooktops, Electric Standard Oven, Electric Self-Clean Oven, Gas Standard Oven, Gas Self-Clean Oven, and Electric and Gas Ranges rulemaking analyses. The efficiency levels are presented below as they apply to the various product classes. In responding to this questionnaire, please refer to the energy factor (EF) values described below.

Table 1.1 Efficiency Levels

Product Class	Baseline	Efficiency Level 1, 1a*	Efficiency Level 2	Efficiency Level 3	Efficiency Level 4	Efficiency Level 5	Efficiency Level 6
Electric Coil Cooktops	0.737	0.769	-	-	-	-	-
Electric Smooth Cooktops	0.742	0.753	-	-	-	-	-
Gas Cooktops	0.156	0.399	0.420	-	-	-	-
Electric Standard Oven	0.1066	0.1113	0.1163	0.1181	0.1206	0.1209	-
Electric Self-Clean Oven	0.1099	0.1102	0.1123	-	-	-	-
Gas Standard Oven	0.0298	0.0536 0.0583*	0.0566	0.0572	0.0593	0.0596	0.060
Gas Self-Clean Oven	0.0540	0.0625	0.0627	0.0632	-	-	-

* Baseline + Electronic Spark Ignition: Cooking efficiency decrease = 0.09 (absolute percentage points), added electricity consumption = 0.0 Wh. Efficiency levels 1 and 1a correspond to designs that are utilized for the same purpose--eliminate the need for a standing pilot--but the technologies for each design are different. Efficiency level 1 is a hot surface ignition device while standard level 1a is a spark ignition device

- 1.1 What are the key issues for your company regarding cooking products related to energy conservation standards and this rulemaking?
- 1.2 For the issues identified, how significant are they for each efficiency level?
- 1.3 How can we most effectively incorporate these issues in the Manufacturer Impact Analysis (MIA)?

2 FINANCIAL PARAMETERS

As stated above, NCI has developed a “strawman” model of the cooking products industry financial performance called the GRIM, using publicly available data (*e.g.*, SEC 10-K Forms) on cooking products manufacturers. This section attempts to understand how your company’s financial situation differs from our industry aggregate picture.

- 2.1 Please compare your financial parameters to the GRIM parameters tabulated below.

Table 2.1 Financial Parameters for Cooking Products Manufacturers

GRIM Input	Definition	Cooking Products GRIM Estimated Value	Your Actual (if significantly different from our estimate)
Income Tax Rate	Corporate (average) effective income tax paid (percentage of earnings before interest and taxes, EBIT)	33.1%	
Discount Rate	Weighted average cost of capital (inflation-adjusted weighted average of corporate cost of debt and return on equity)	6.6%	
Working Capital	Current assets less current liabilities (percentage of revenues)	3.3%	
SG&A	Selling, general, and administrative expenses (percentage of revenues)	13.0%	
R&D	Research and development expenses (percentage of revenues)	2.3%	
Depreciation	Amortization of fixed assets (percentage of revenues)	3.4%	
Capital Expenditures	Outlay of cash to acquire or improve capital assets (percentage of revenues, not including acquisition or sale of business units)	3.5%	

3 PRODUCTION COST BREAKDOWN

Using information from the 1996 TSD, DOE estimated the industry average percentage breakdown of each manufacturing cost in the full production cost.

- 3.1 Please compare your full production cost percentages to the GRIM full production cost percentages tabulated below. Are the different percentages of each cost representative of your company or the cooking products industry? Please explain any differences.

Table 3.1 Breakdown by Percentage of Full Production Costs for Baseline Cooking Products

Components of Full Production Costs	Estimated % of Full Production Cost	Your Actual (if significantly different from our estimate)
Materials	66.19 %	
Labor	12.98 %	
Overhead	16.55 %	
Depreciation	4.28 %	

4 SHIPMENT PROJECTION AND MARKET SHARE

- 4.1 Would you expect your market share to change once standards become effective? Does your outlook change with higher efficiency levels?
- 4.2 How would you expect shipments to change for the industry as a whole as a function of standards and why?

5 CONVERSION COSTS

An increase in energy conservation standards may cause your company to incur one-time capital and product conversion costs^a. DOE calls these conversion costs because they are the costs of changing your business to comply with new energy conservation standards.

- 5.1 What level of conversion costs do you anticipate incurring under the different efficiency levels? Refer to the tables below to provide your company's estimates for the industry. Please compare your conversion costs with the GRIM conversion costs for the industry tabulated below. Please provide additional qualitative information to help us understand the nature of your investments.

Table 5.1 Electric Coil Cooktops Conversion Costs (\$ Millions)

Standard Level	GRIM Estimated Total Industry		Your Estimate (if significantly different from our estimate Total Industry)		
	Conversion Capital Expenditures	Product Conversion Expenses	Conversion Capital Expenditures	Product Conversion Expenses	Stranded Assets
Baseline (0.737)	\$0	\$0			
Level 1 (0.769)	\$0	\$13			

Table 5.2 Electric Smooth Cooktops Conversion Costs (\$ Millions)

Standard Level	GRIM Estimated Total Industry		Your Estimate (if significantly different from our estimate Total Industry)		
	Conversion Capital Expenditures	Product Conversion Expenses	Conversion Capital Expenditures	Product Conversion Expenses	Stranded Assets
Baseline (0.742)	\$0	\$0			
Level 1 (0.753)	\$104.4	\$13			

Table 5.3 Gas Cooktops Conversion Costs (\$ Millions)

^a Capital and product conversion costs include capital conversion expenditures, product conversion expenditures and stranded assets. Capital Conversion Expenditures – One time investments in plant, property, and equipment (PPE) necessitated by an energy conservation standard. These may be completely incremental to existing PPE or they could involve replacement of existing PPE. Product Conversion Expenditures – One-time expenses in research, product development, testing, and marketing necessitated by an appliance energy conservation standard. Stranded Assets – Investments such as equipment or tooling that become obsolete as a result of new regulation.

Standard Level	GRIM Estimated Total Industry		Your Estimate (if significantly different from our estimate Total Industry)		
	Conversion Capital Expenditures	Product Conversion Expenses	Conversion Capital Expenditures	Product Conversion Expenses	Stranded Assets
Baseline (0.156)	\$0	\$0			
Level 1 (0.399)	\$4.4	\$13			
Level 2 (0.420)	\$4.4	\$26			

Table 5.4 Electric Standard Oven Conversion Costs (\$ Millions)

Standard Level	GRIM Estimated Total Industry		Your Estimate (if significantly different from our estimate Total Industry)		
	Conversion Capital Expenditures	Product Conversion Expenses	Conversion Capital Expenditures	Product Conversion Expenses	Stranded Assets
Baseline (0.1066)	\$0	\$0			
Level 1 (0.1113)	\$0.9	\$13			
Level 2 (0.1163)	\$1.5	\$26			
Level 3 (0.1181)	\$103.3	\$39			
Level 4 (0.1206)	\$167.7	\$52			
Level 5 (0.1209)	\$179.8	\$65			

Table 5.5 Electric Self-Clean Oven Conversion Costs (\$ Millions)

Standard Level	GRIM Estimated Total Industry		Your Estimate (if significantly different from our estimate Total Industry)		
	Conversion Capital Expenditures	Product Conversion Expenses	Conversion Capital Expenditures	Product Conversion Expenses	Stranded Assets
Baseline (0.1099)	\$0	\$0			
Level 1 (0.1102)	\$28.8	\$13			
Level 2 (0.1123)	\$109.6	\$26			

Table 5.6 Gas Standard Oven Conversion Costs (\$ Millions)

Standard Level	GRIM Estimated Total Industry		Your Estimate (if significantly different from our estimate Total Industry)		
	Conversion Capital Expenditures	Product Conversion Expenses	Conversion Capital Expenditures	Product Conversion Expenses	Stranded Assets
Baseline (0.0298)	\$0	\$0			
Level 1,1a (0.0536) (0.0583)	\$2.9 \$3.6	\$13			
Level 2 (0.0566)	\$3.9	\$26			
Level 3 (0.0572)	\$8.4	\$39			
Level 4 (0.0593)	\$57.3	\$52			
Level 5 (0.0596)	\$58.4	\$65			
Level 6 (0.060)	\$74.5	\$78			

Table 5.7 Gas Self-Clean Oven Conversion Costs (\$ Millions)

Standard Level	GRIM Estimated Total Industry		Your Estimate (if significantly different from our estimate Total Industry)		
	Conversion Capital Expenditures	Product Conversion Expenses	Conversion Capital Expenditures	Product Conversion Expenses	Stranded Assets
Baseline (0.540)	\$0	\$0			
Level 1 (0.0625)	\$6.8	\$13			
Level 2 (0.0627)	\$15.6	\$26			
Level 3 (0.0632)	\$17.4	\$39			

6 PROFITABILITY AND MANUFACTURING CAPACITY

One of the primary objectives of the MIA is to assess the impact of efficiency levels on industry profitability and changes in manufacturing capacity.

- 6.1 Do profit levels vary by efficiency level? Please explain why or why not?
- 6.2 Do you expect any changes in your estimated profitability following the new energy conservation standard? If so, please explain why.
- 6.3 How would the imposition of new energy conservation standards affect your manufacturing capacity at your production facilities? Would any facilities be closed, downsized, added, or upgraded?

7 CUMULATIVE REGULATORY BURDEN

Cumulative regulatory burden refers to the burden that industry faces from overlapping effects of new or revised DOE standards and/or other regulatory actions affecting the same products or industry

- 7.1 Are there other recent or impending regulations that cooking products manufacturers face (from DOE or otherwise)? What level of investment are you expecting to incur as a result of these regulations?
- 7.2 Under what circumstances would you be able to coordinate any expenditures related to other regulations thereby lessening the cumulative burden?

8 DIRECT EMPLOYMENT IMPACT ASSESSMENT

The impact of new energy conservation standards on employment is an important consideration in the rulemaking process. This section of the interview guide seeks to explore current trends in cooking products production employment and solicit manufacturer views on how domestic employment patterns might be affected by new energy conservation standards.

- 8.1 Would your domestic employment levels change under new energy conservation standards? If so, please explain how they would change.
- 8.2 Would the workforce skills necessary under new energy conservation standards require extensive retraining or replacement of employees?

9 CONSOLIDATION

New energy conservation standards can alter the competitive dynamics of the market. This can include prompting companies to enter or exit the market, or to merge. DOE and the Justice Department are both interested in any potential reduction in competition that would result from a new energy conservation standard.

- 9.1 In the absence of new standards, do you expect any industry consolidation? Please describe your expectations.
- 9.2 How would new standards affect your ability to compete?
- 9.3 Could new standards disproportionately advance or harm the competitive positions of some firms (*e.g.*, small businesses)?

13A.2 MICROWAVE OVENS (ENERGY FACTORY STANDARDS)

**Cooking Products Rulemaking
Manufacturer Impact Analysis Interview Guide: Microwave Ovens**

March 3, 2008

1 KEY ISSUES

The Department of Energy (DOE) is currently reviewing a set of efficiency levels for Microwave Ovens (MWO). The efficiency levels are presented below as they apply to the single product class. In responding to this questionnaire, please refer to the energy factor (EF) values described below.

Table 1.1 Efficiency Levels (EF %)

Product Class	Baseline	Efficiency Level 1	Efficiency Level 2	Efficiency Level 3	Efficiency Level 4
Microwave Ovens	55.70	58.60	58.80	59.70	60.20

- 1.1 What are the key issues for your company regarding MWO related to energy conservation standards and this rulemaking?
- 1.2 For the issues identified, how significant are they for each efficiency level?
- 1.3 How can we most effectively incorporate these issues in the Manufacturer Impact Analysis (MIA)?

2 SHIPMENT PROJECTION AND MARKET SHARE

- 2.1 Would you expect your market share to change once standards become effective? Does your outlook change with higher efficiency levels?
- 2.2 How would you expect shipments to change for the industry as a whole as a function of standards and why?

3 CONVERSION COSTS

An increase in energy conservation standards may cause your company to incur one-time capital and product conversion costs. DOE calls these conversion costs because they are the costs of changing your business to comply with new energy conservation standards.

- 3.1 What level of conversion costs do you anticipate incurring under the different efficiency levels? Refer to the tables below to provide your company's estimates. Please provide additional qualitative information to help us understand the nature of your investments.

Table 3.1 MWO Conversion Costs

Standard Level	Conversion Capital Expenditures	Product Conversion Expenses	Stranded Assets
Baseline (55.70)			
Level 1 (58.60)			
Level 2 (58.80)			
Level 3 (59.70)			
Level 4 (60.20)			

4 PROFITABILITY AND MANUFACTURING CAPACITY

One of the primary objectives of the MIA is to assess the impact of efficiency levels on industry profitability and changes in manufacturing capacity.

- 4.1 Does your company have any MWO manufacturing facilities located in the United States? How would you expect shipments to change for the industry as a whole as a function of standards and why?
- 4.2 Do you expect any changes in your estimated profitability following the new energy conservation standard? If so, please explain why.
- 4.3 How would the imposition of new energy conservation standards affect your manufacturing capacity at your production facilities? Would any facilities be closed, downsized, added, or upgraded?

5 CUMULATIVE REGULATORY BURDEN

Cumulative regulatory burden refers to the burden that industry faces from overlapping effects of new or revised DOE standards and/or other regulatory actions affecting the same products or industry.

- 5.1 Are there other recent or impending regulations that MWO manufacturers face (from DOE or otherwise)? What level of investment are you expecting to incur as a result of these regulations?
- 5.2 Under what circumstances would you be able to coordinate any expenditures related to other regulations thereby lessening the cumulative burden?

6 DIRECT EMPLOYMENT IMPACT ASSESSMENT

The impact of new energy conservation standards on employment is an important consideration in the rulemaking process. This section of the interview guide seeks to explore current trends in MWO production employment and solicit manufacturer views on how domestic employment patterns might be affected by new energy conservation standards.

- 6.1 Would your domestic employment levels change under new energy conservation standards? If so, please explain how they would change.
- 6.2 Would the workforce skills necessary under new energy conservation standards require extensive retraining or replacement of employees?

7 CONSOLIDATION

New energy conservation standards can alter the competitive dynamics of the market. This can include prompting companies to enter or exit the market, or to merge. DOE and the Justice Department are both interested in any potential reduction in competition that would result from a new energy conservation standard.

- 7.1 In the absence of new standards, do you expect any industry consolidation? Please describe your expectations.

- 7.2 How would new standards affect your ability to compete?
- 7.3 Could new standards disproportionately advance or harm the competitive positions of some firms (*e.g.*, small businesses)?